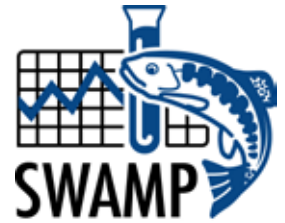


# Monitoring



2009 SWAMP Achievements Report

## Monitoring

### What is it?

Monitoring is the collection of scientific data at specified intervals from a network of sites in order to answer assessment questions such as:

- What is the overall quality of California's surface waters?
- What is the pace and direction of change in surface water quality over time?
- Which water bodies have water quality problems and which areas are at risk?
- What are the causes of water quality problems and where are the sources of those stressors?
- How effective are clean water projects and programs?

SWAMP monitoring activities include the design of monitoring programs, including survey schedules, site networks, measurement indicators, and statistical methods to best characterize resource condition; field observation and field sample collection; laboratory analyses of field samples; and retrieval and organization of relevant ancillary data (flow, land use, etc.) available from other sources. The resulting data are then evaluated (we usually use the term 'assessed' as the final product is called an assessment) to provide information for resource management. Prior to the start of a monitoring project, a Monitoring Plan and Quality Assurance Project Plan must be developed and approved. These documents also receive external peer review by known experts. The statewide and regional programs are collaborative efforts receiving financial support from SWAMP as well as one or more of our valued partners. Many of the monitoring efforts span multiple years.

### Why is SWAMP monitoring data important to the State?

SWAMP monitoring programs address information needs at both the statewide and regional levels. SWAMP encourages data sharing, consolidation, and comparability by providing disparate projects and partner agencies with program-compatible database formats, management guidelines, and quality systems. Data collected by and for SWAMP are then used to conduct regional and statewide assessments. Statewide monitoring and assessments provide information on the status and trends of



California waters to guide decisions made by the Legislature and the State Environmental and Resource agencies. Regional monitoring and assessments provide rapid feedback for problem management, information to determine the causes and sources of impairments, identification of emerging threats, evaluation of management effectiveness, and ability to partner with local agencies.

## Why is SWAMP important to me?

The expectation by Californians to have clean water is deep seated. Clean water is essential for our health and survival. Every year, hundreds of decisions are made that influence our water quality. These decisions range from local development decisions to statewide policy implementation. SWAMP provides information that can be used to help answer the questions:

- How well are we managing California's precious resource – water?
- Are we protecting the beneficial uses of our water – namely, is the water safe for me to swim in, is the fish I catch in it healthy so that I may eat it safely, and is the overall ecosystem healthy?
- Are we investing our limited state resources effectively and focusing them on the right water quality problems?

## How will this information be used?

Data collected for and by SWAMP provide information that can be used to help answer the above questions. It can also be used for making management decisions such as recognizing that a water body is not meeting water quality objectives and requiring that actions be taken to make the water cleaner. In addition, SWAMP data are used by local agencies for developing permits and by State agencies in the development of fish consumption advisories and safe eating guidelines.

